Red-M

SOLUTIONS

High Bandwidth Connectivity

RED-M's HIGH BANDWITH CONNECTIVITY SOLUTIONS CAN SAVE YOU MONEY - WITH UP TO 60% LOWER COST OF OWNERSHIP

THE RED-M CONNECTIVITY SOLUTIONS PORTFOLIO WILL LINK ALL YOUR ETHERNET LOCAL AREA NETWORKS (LANs) TRANSPARENTLY AND RELIABLY. ACTING AS A SINGLE SOURCE FOR ALL YOUR HIGH BANDWIDTH AND DEDICATED NETWORK LINK REQUIREMENTS, RED-M OFFERS A RANGE OF PROVEN AND COST-EFFECTIVE SOLUTIONS FOR ANY LOCAL AUTHORITY OR ENTERPRISE NEEDING TO CONNECT MULTIPLE SITES ACROSS A METROPOLITAN AREA.

A COMPLETE SOLUTION

Red-M is a leader in the field of wireless technologies and its high bandwidth connectivity portfolio is built around the provision of its Radio Extension Service (RES). Used to link Ethernet LANs so that they appear as one network, RES enables quick and easy sharing of information.

Equivalent in data throughput to fixed or wired circuits, yet significantly more flexible and cost-effective, RES provides all of the features and functionality you would expect - but with potential savings of up to 60% on the total cost of ownership.

RES is suitable for applications and communications where there is line-of-sight between buildings, or near line-of-sight. However, as part of its total solutions approach, Red-M also manages fixed/wired circuits to help ease your operational duties and assist a migration to RES, as well as providing such fibre-based fixed circuits in the rare situations where RES might not be appropriate or suitable.

Commonly known as LAN Extension Services (LES), these fixed links are high speed, permanently connected point-to-point data circuits that provide fast, seamless connections, as does RES.

Red-M provides a single point of contact, and a comprehensive supply, migration and management service, whatever your high bandwidth connectivity needs.

RES - RADIO EXTENSION SERVICE

High speed radio technology is used to provide this more economic alternative to fibre-based circuits, as well as a much faster installation time – usually only 4 weeks as opposed to a typical 4 months with a fixed fibre circuit. Using its close links to Ofcom, Red-M handles all of the necessary radio licensing issues.

Offering a highly flexible range of throughput rates from just 2 Mbps to over 1000 Mbps, RES is permanently connected and available 24 hours a day, 365 days per year.

THE RED-M BENEFITS

As a single source for all your dedicated network link requirements, Red-M can:

- **Save you money by installing, or switching you to, an upgradeable, modular and flexible RES solution**
- **Provide a better, more co-ordinated service by taking on the management of your existing fixed circuits**
- **Handle all fixed circuit contract issues, including termination**
- **Improve operational efficiency**
- **Deliver a more cost-effective solution**
- **Supply fixed LES circuits if needed**

RES provides the necessary Quality of Service to carry data simultaneously with delay and jitter sensitive services such as VoIP and video. It also supports timing critical circuits such as an E1 for backhaul or telephony.

High Bandwidth Connectivity

RES THROUGHPUT OPTIONS

RES 10 interconnects two 10 Mbps Ethernet LANs but can also be configured to operate at speeds from 2 Mbps up to 10 Mbps.

RES 100 is used to link two 100 Mbps Fast Ethernet LANs, but also has the flexible option to run at almost any speed from 10 Mbps up to 100 Mbps.

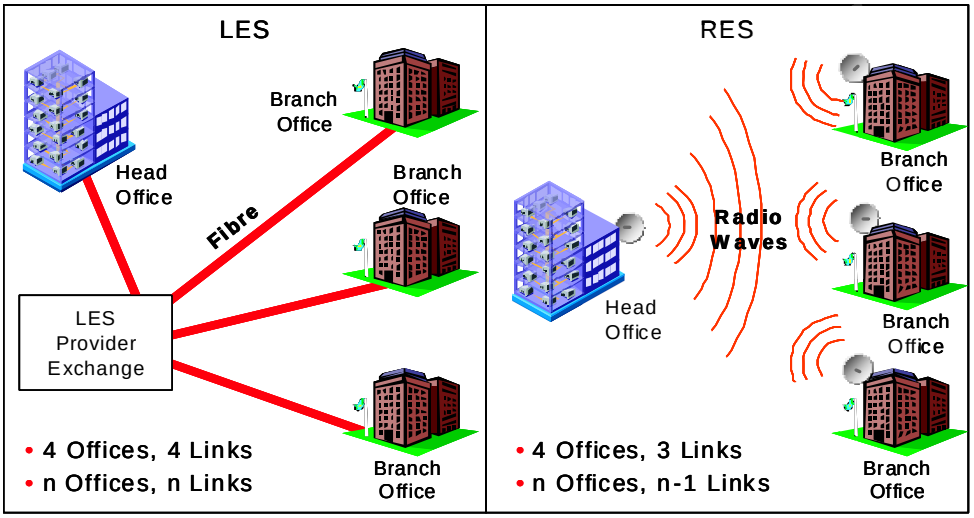
RES+ is available for linking sites where the throughput required is higher than 100 Mbps. The key difference over fixed-speed services such as LES 1000 is that RES+ can be installed in flexible increments of 150 Mbps, from 100 Mbps upwards. This means that you only pay for what throughput you need, when you need it. RES+ is fully upgradable and modular, allowing you to add - or reduce - as and when required. All rates are subject to suitable radio conditions.

LES - LAN EXTENSION SERVICE

These Ethernet-based services have provided one of the most economical ways to deliver the high bandwidth connections required for LAN to LAN interconnect. However, recent BT Openreach price rises in annual rental rates of up to 80% have now made many LES circuits potentially uneconomic.

However Red-M can supply LES circuits, where needed, to interconnect Ethernet LANs at the following fixed speeds:

- 10 Mbps
- 100 Mbps
- 155 Mbps
- 622 Mbps
- 1000 Mbps
- 2500 Mbps
- 10000 Mbps



RES offers a more cost-effective solution by only needing n-1 links to link n sites.

CONNECTING MULTIPLE SITES

Point-to-point and point-to-multipoint (hub and spoke) RES deployments are available. LES uses a BT exchange as the 'hub', so 'n' fibre LES links are needed to connect 'n' offices. RES uses a main office as the hub, so only 'n-1' links are required to connect 'n' offices, making RES more cost-effective.

HIGH SECURITY YET EASY TO USE

Both RES and LES circuits are protocol transparent for seamless operation yet fully secure (RES links are as secure as the existing wired LAN with AES encryption).

FINANCIAL OPTIONS

Costs will depend on the bandwidth required and the number of end-points. Services are provided on a managed basis, structured via an initial installation charge and low ongoing rental.

QUICK AND EASY INSTALLATION

RES installation is usually within 4 weeks of receipt of order; typically a LES installation takes around 4 months.

MAXIMUM DISTANCES

Ranges of up to 25 km can be provided for both LES and RES, where radio conditions allow for the latter.

LINK AVAILABILITY & RESILIENCE

Red-M can design for circuit availability of 99.999%. RES offers an improved level of service to LES as there is no radio equivalent to a 'duct failure' that can take out both links and lead to lengthy repair delays. Duct failures can typically take five days to repair during which time the LES circuit is unavailable.

SUPPORT AND MAINTENANCE

Red-M offers both Reactive Maintenance and Proactive Monitoring, using SNMP.

Independent of equipment vendors and technologies, Red-M enables organisations to fully realise the benefits of wireless systems by delivering high quality solutions through an integrated five step cycle of best practice:

1. CONSULTING
Defining exactly how, when and where wireless will be used.

2. AUDIT
Understanding what is happening and developing a design baseline.

3. DESIGN
Optimum wireless performance from a design that works right, first time.

4. IMPLEMENT
A non-disruptive installation using best-of-breed technologies.

5. MANAGE
Maintaining a healthy network that continues to meet your needs.

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